Probability of Exceedence Wind Grids (Ver 1.0)

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Install Instructions

This document outlines the steps to install/configure software needed to generate probabilistic wind grids in GFE. This document assumes a basic working knowledge of GFE typical of a GFE focal point.

1. Edit /awips/GFESuite/primary/etc/SITE/localConfig.py for the following:
   a. Add SREF model if not already added. It only needs to appear as a D2d grid, so a smartInit install/configuration is not needed.

```
serverConfig.D2DDIRS.append(('/data/fxa/Grid/SBN/netCDF/CONUS212/SREF','SREF'))
```

   b. Add the new weather elements to the parms line and define the new grids:

```
Parms = [ ([PoWind15, PoWind25, PoWind35, PoWind45, PoWindGust20, PoWindGust30,
PoWindGust40, PoWindGust50, PoWindGust60], TC1) ]

PoWind15 = ("PoWind15mph", SCALAR, "%", "Prob to Exceed 15mph", 100., 0., 0, NO)

PoWind15 = ("PoWind25mph", SCALAR, "%", "Prob to Exceed 25mph", 100., 0., 0, NO)

PoWind15 = ("PoWind35mph", SCALAR, "%", "Prob to Exceed 35mph", 100., 0., 0, NO)

PoWind15 = ("PoWind45mph", SCALAR, "%", "Prob to Exceed 45mph", 100., 0., 0, NO)

PoWindGust20 = ("PoWindGust20mph", SCALAR, "%", "Prob to Exceed 20mph", 100., 0., 0, NO)

PoWindGust30 = ("PoWindGust30mph", SCALAR, "%", "Prob to Exceed 30mph", 100., 0., 0, NO)

PoWindGust40 = ("PoWindGust40mph", SCALAR, "%", "Prob to Exceed 40mph", 100., 0., 0, NO)

PoWindGust50 = ("PoWindGust50mph", SCALAR, "%", "Prob to Exceed 50mph", 100., 0., 0, NO)

PoWindGust60 = ("PoWindGust60mph", SCALAR, "%", "Prob to Exceed 60mph", 100., 0., 0, NO)
```

   c. Nix receipt of these via ISC by adding them to your ISC_RECEIVE_NEVER_PROCESS_PARMS line

```
ServerConfig.ISC_RECEIVE_NEVER_PROCESS_PARMS = ['PoWind15', 'PoWind25', 'PoWind35',
'PoWind45', 'PoWindGust20', 'PoWindGust30', 'PoWindGust40', 'PoWindGust50',
'PoWindGust60']
```

2. Install POEcalc utility. (No local configuration is required.)

3. Install MakeProbWindGrids procedure
   a. There is a section to configure which grids to generate and the time intervals. By default the above grids are generated at 3 hr intervals to 72 hrs. Other options are documented inside the procedure.
   b. There are also two entries to determine the "forecast cycle" by specifying the start/stop forecast hours for the 12z cycle. (07z and 18z by default) This allows procedure to run without human input.

c. **REQUIRED CONFIGURATION:** Change the `self._editArea = self.getEditArea("ICT_Mask")` to the mask of your choice.

4. Install CalcProbWind smarttool
   a. As long as the office uses the SREF for the standard deviation calculations (default), no configuration is required.

5. Install "Prob Wind Grids" group (bundle). This is optional, but allows for quick display of all probabilistic grids.

6. Restart the GFE server to get new elements to appear. (Verify that they are there after it restarts.)

7. Run MakeProbWindGrids procedure and verify that new grids are populated.

8. Add elements to what is sent to web server.
   a. Edit: /awips/adapt/ifps/localbin/rsyncGridsToCWF.sh
   b. Add all of the new weather elements to the parmlist# entry (where # is 1-6). It doesn't matter which one(s) the elements are added to, but each weather element should only be entered once.

9. Determine how/when you want to generate these grids. The procedure could be bundled into a wrap up/finish grids mega script, run via cron or manually. We opted to run it as part of the script that ships the grids to the central server. The command line to run the procedure outside of GFE is:

```
/awips/GFESuite/bin/runProcedure –n MakeProbWindGrids –u username  –c configFile
```

where *username* and *configFile* are the user and config file you opt to use.